RESEARCH & DEVELOPMENT

Building a scientific foundation for sound environmental decisions

Development of WTC Dust and Fire Screening Methods

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WTC Collapse Dust Screening Method

- Primary focus on slag wool and other collapse components.
- If components are not present, WTC dust is not present.
- Method has been successfully applied to a small number of known WTC and background dusts. Validation will involve applying method to additional background and diluted WTC dusts.

WTC Fire Screening Method

- Focuses on mass fraction and ratio of 9 Poly Aromatic Hydrocarbons (PAHs).
- Method would allow us to determine locations not affected by WTC fires.
- Method has been successfully applied to a small number of known WTC and background dusts. Validation will involve application to additional background and diluted WTC dusts.

Steps to Validation

1. **Sample Collection** - collect multiple dust samples from WTC and background locations.

Sample Collection

- Have collected samples of known WTC dusts from two locations.
- Currently collecting samples from background areas throughout the greater NY City area.

Steps to Validation

1. **Sample Collection** - collect multiple, dust samples from WTC and background locations.

2. **Background Confirmation** - confirm composition of background samples.

Background Confirmation

- Will have background samples analyzed for WTC screening components i.e. slag wool, PAHs, etc.
- Confirm that these components are not present at levels that would prevent use of screening methods.

Steps to Validation

1. **Sample Collection** - collect multiple dust samples from WTC and background locations.

2. **Background Confirmation** - confirm composition of background samples.

3. **WTC Dust Dilution** – spike confirmed background dust with three levels of WTC dust.

WTC Dust Dilution

- Confirmed background dust will be spiked at three different levels with WTC dust.
- Spiking will help determine sensitivity of screening method.

Steps to Validation

1. **Sample Collection** - collect multiple dust samples from WTC and background locations.
2. **Background Confirmation** - confirm composition of background samples.
3. **WTC Dust Dilution** – spike confirmed background dust with three levels of WTC dust.
4. **Validation** - send all samples (spiked and background) to commercial laboratories for classification as background or non-background.

Validation

- All spiked and confirmed background samples will be sent to multiple independent laboratories for method validation.
- Laboratories will all use a standard method to determine validity.

Timeframe

- All samples expected to be collected by March 1st.
- Background samples prepped and distributed to labs for confirmation by March 15th.
- If background samples confirmed, WTC spikes and background samples distributed to commercial labs for validation by April 15th.
- Final results/validation expected by May 31st.